A Comparison of Information Systems Programs at AACSB and ACBSP Schools in Relation to IS 2002 Model Curricula

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ABSTRACT

Given the downturn in Information Systems (IS) program enrollments, IS departments housed within schools of business are justifiably concerned about attracting more students into their programs. While some reasons for the downturn may be beyond the control of the academic community, it has been argued that IS programs are suffering, in part, because many of their curricula are out-of-date. To help address this problem, the current study offers guidance to support IS departments involved in revising their IS curricula. To accomplish this, catalogs from fifty randomly selected AACBS schools and fifty randomly selected ACBSP schools were accessed via the Internet to determine the most commonly required courses for an undergraduate IS major. Findings were then compared to previous research in order to identify changes and trends, as well as to determine compliance with model curricula.

Keywords: Information Systems Curricula, Curriculum Design, IS Curriculum Trends, IS Model Curricula

1. INTRODUCTION

Despite the downturn following Y2K implementations and claims of increased outsourcing, the overall job market for Information Technology professionals has remained relatively strong. In fact, according to a 2007 report sponsored by the Information Technology & Innovation Foundation, Information Technology remains central to economic growth since it is used in virtually every sector of the economy from farming to manufacturing and from services to government (Atkinson and McKay, 2007). Supporting the continued importance of Information Technology, the National Association of Colleges and Employers (NACE) has reported that the average starting salary offer made to 2008 computer and information science graduates was up almost 13%, from $51,992 to $58,677 (NACE, 2008). Additionally, Information Technology related jobs represent 5 of the top 25 identified fastest growing occupations (NACE, 2008). Furthermore, the Bureau of Labor Statistics predicts that Network Systems and Data Communication Analysts will be the top occupation in the United States between now and 2016 (Bureau of Labor Statistics, 2008). According to predictions for 2005 in a Computerworld article, the most sought after positions will be systems auditors, sales consultants, and programmer/analysts (Lee, 2005). External forces will also keep demand strong for systems auditing. The Sarbanes-Oxley Act has fueled the need for the audit side of Information Technology as the business world has strived to address widespread scandals as evidenced by the downfall of corporate giants such as Enron, WorldCom, and Global Crossing.

All these signs of strong Information Technology demand seem to be at odds with the widely reported declines in Information Systems (IS) program enrollments around the country. A number of reasons have been posited for this decline - many of them being beyond the control of the

academic community. That said, at least one study argues that declining enrollments may, in part, be caused by IS curriculums that are out-of-date (McGann et al., 2007). Given that IS departments should be reviewing their curricula on a regular basis anyway, addressing this possible cause of the enrollment downturn should be considered low hanging fruit. Essentially, up-to-date curricula are not only critical to the preparation of qualified Information Technology professionals, they may also be an effective way to attract more students into IS programs.

The purpose of this study was, therefore, to gather information on the most commonly required courses in undergraduate IS programs in the United States in order to offer guidance and insight to curriculum developers. Additionally, the paper compares current course offerings to those discussed in previous research in order to identify changes that have occurred and the development of new trends.

2. METHODOLOGY

2.1 Study Design

In order to keep up with the fast-paced changes in technology, IS programs must continually assess their curricula and teaching methods. The accreditation process exists, in part, to help monitor programs to make sure they meet minimum curricular standards which are periodically reviewed and updated. Although the Accreditation Board for Engineering and Technology (ABET) is the only organization which specifically accredits IS programs, the majority of IS programs do not have this standalone accreditation. Instead, the majority of IS programs reside within schools of business that are accredited by the International Association to Advance Collegiate Schools of Business (AACSB) or the Association of Collegiate Business Programs (ACSBP). Therefore, in order to ensure a sufficient sample frame, this study draws its sample from IS programs from AACSB and ACBSP accredited schools of business.

The data were collected during the 2007-08 academic year by accessing each university's course catalog via their website**.** The decision to use the Internet as the primary data source was based on the belief that web-based catalogs would be the most accurate and up-to-date. Given the variety of IS program names, it was decided to cast a wide net when determining the sample frame. As such, schools with Management Information Systems (MIS), Computer Information Systems (CIS), and Information Systems (IS) programs were all included. To improve readability, the paper will make no distinction with regard to the specific program name, instead referring to all programs as simply IS. The collected data included only those courses that are required as part of the IS major.

2.2 Data Collection

A list of all AACSB accredited business schools was obtained from the AACSB International website (http://www.aacsb.edu). A similar list of the ACBSP accredited schools was obtained from the ACBSP website (http://www.acbsp.org). These lists were first reviewed to remove those schools that were outside the United States. The remaining schools were then reviewed to remove those that did not offer a major or concentration in Information Systems leading to a four year degree.

After this filtering process was completed, there were 295 AACSB and 112 ACBSP schools. Since the purpose of this study was to identify the most common IS requirements, it was determined that a sample of 50 schools from each accrediting body would be sufficient to identify relevant trends. To draw the sample, Microsoft Excel was used to generate a random number for each school in the two lists. The lists were then sorted based on the random number with the first fifty schools in each list being used as the sample for the study.

3. RESULTS

A review of the collected data indicates a high degree of consistency between IS programs at AACSB and ACBSP schools as it relates to the four most frequently required courses, (see Table 1). It should be noted that, since many programs do not specifically list the programming language they require, all programming requirements were grouped in a generic languages category. The percentages shown in Table 1 for Programming Languages were generated by double checking the course catalogs for each school to make sure that schools that require more than one programming course were not counted multiple times. While the data appears largely consistent, there is a noticeable difference between the number of IS programs at AACSB schools (74%) and ACBSP (66%) schools that require a course in Networks/Data Communication. This could be due to a difference in the level of resources available at the two types of schools, including access to qualified faculty or advanced networking hardware.

The complete list of required courses can be found in Appendix A. An examination of this list yields several noteworthy observations. Of particular interest is the wide variety of programming languages that different IS programs

	All schools	AACSB (N=50)	ACBSP (n=50)
Database	87.0%	88.0%	86.0%
Systems Analysis & Design[1]	81.0%	84.0%	78.0%
Programming Languages [2]	78.0%	76.0%	80.0%
Networks / Data Communication	70.0%	74.0%	66.0%

[1]Systems Analysis & Design = *Systems Analysis & Design I*

[2]Programming Languages = *Assembly Language, BASIC, C, C#, C++, COBOL, COBOL II, Java, Java II, Object Oriented Programming I, Object Oriented Programming II, Programming/Program Design/ Development I & II, RPG, Survey of Programming Languages, UNIX, VB, VB II*

Table 1. The four most frequently required courses

	All schools	AACSB (n=43)	Non-AACSB (n=26)
Database	75.4%	81.4%	65.4%
COBOL 1	72.5%	65.1%	84.6%
Systems Analysis and Design	69.6%	76.7%	57.7%
Computer Concepts	53.6%	55.8%	50.0%

Table 2. The four most commonly required courses per Gambill and Maier (1998)

require. While most programs appear to have standardized on object-oriented languages such as VB and Java, there are programs which still require procedural languages such as COBOL and BASIC. Most interesting is the fact that a significant percentage of IS programs no longer have a programming requirement. According to the collected data, 24% of programs at AACSB schools and 20% of programs at ACBSP schools do not require their students to take a course in programming at all.

4. DISCUSSION

4.1 Curriculum Trends

Comparing the results from this study with those from previous studies makes it possible to identify changes over time and uncover possible new trends. One such previous study was conducted by Gambill and Maier in 1998.

In their study, Gambill and Maier (1998) collected data by directly surveying IS department chairs identified using the Directory of Management Systems Faculty. While Gambill and Maier (1998) surveyed a variety of schools, they categorized the results as being from AACSB and non-AACSB accredited institutions. This effectively lumped schools accredited by ACBSP in the same category with schools possessing no business school accreditation. While the number of schools accredited by the ACBSP may not have been large at the time of the study, this still appears to have been a significant oversight on the part of Gambill and Maier (1998). Regardless, the four most commonly required courses as reported by Gambill and Maier (1998) are shown in Table 2.

Comparing the results in Table 1 with those in Table 2, it is clear that a Database course continues to be the most commonly required course in IS programs regardless of the type of accreditation held by the school. This implies that faculty and curriculum designers consider an understanding of database design and implementation critical to the education of future IS professionals.

Computer Concepts was identified as the fourth most commonly required course by Gambill and Maier (1998), with over 50% of the schools requiring it. Our study found only 26% of programs at AACSB schools and 40% of programs at ACBSP schools required a course in Computer Concepts. One possible explanation for the drop in the requirement is that Computer Concepts is now being included in the business core at many schools and is no longer a specific requirement for an IS major.

Systems Analysis and Design was identified as the third most frequently required course by Gambill and Maier (1998) with almost 70% of all schools surveyed requiring it. In our study, Systems Analysis and Design was required by 80% of IS programs, moving it up to the second most frequently required course. The change could indicate that current IS programs are placing an increased emphasis on project management and the software development process.

An additional difference in the findings is that Networks/Data Communication is required by 70% of the programs in our study, whereas Gambill and Maier reported that only 37% of their sample required the course in 1998. These results are not surprising given the growth of networking within the Information Technology field.

Several insightful observations can be made regarding the inclusion of programming languages in the required core of IS programs. The Gambill and Maier (1998) study listed individual programming classes, with COBOL being the second most commonly required course, with 72.5% off all schools requiring at least one class in COBOL.

Not surprisingly, the inclusion of COBOL has generated significant controversy over the past decade with curriculum designers. One might assume that COBOL is "dead" due to the increased use of fourth-generation and object-oriented languages. And in fact, this study revealed that only 14% of programs at ACBSP and 10% of programs at AACSB schools are requiring a COBOL class. These results are at odds with a recent study which reported that 15 of 24 (62.5%) practitioners expressed a need to include COBOL programming in the MIS curriculum (Ehie, 2002). COBOL may not be as "dead" as many IS academics seem to believe.

4.2 Model Curricula

The results presented herein show that there have been some significant changes in IS curricula over the past decade. Many of these changes are due to the guidance provided by curriculum models developed by the larger IS community. The first of these model curricula was the IS'95 developed by a combined effort of both the Association for Computing Machinery (ACM) and the Data Processing Management Association (now the Association for Information Technology Professionals or AITP). Feedback was solicited at numerous IS conferences and was incorporated into revised versions of the curriculum: IS'97 and IS 2002 (the most recent). The use of these IS model curricula "enables local academic units to maintain academic programs that are consistent both with regional and national employment needs and with the common body of knowledge of the IS field" (Gorgone et al., 2002). A list of the courses included in the IS 2002 model curriculum can see seen in Appendix B.

A recent study by Kung et al. (2006) attempted to map the most common offered courses to a set of seven categories based on the IS courses described in the IS 2002 model curriculum. The categories and their associated IS 2002 courses are as follows: Introduction to IS (IS 2002.1 and IS 2002.3); Operating Systems (IS 2002.4); Programming (IS 2002.5); Telecommunications (IS 2002.6); Systems Analysis and Design (IS 2002.7); Database (IS 2002.8); and IS Capstone (IS 2002.9 and IS 2002.10). Since Kung et al.

(2006) did not specifically create a category to represent the IS 2002.2 course, an eighth category (E-commerce) was created for this study.

Kung et al. (2006) drew their sample by using the College Blue Book to identify four-year institutions offering majors in IS. Data was then collected for the resulting list of 232 institutions from their web-based course catalogs. The collected data was then mapped into the seven categories. Kung et al. (2006) did not categorize their results by accreditation body which means that, given the source of the sample, they almost certainly lumped accredited and non-accredited schools in together. This lack of categorization is problematic since Kung et al. (2006) specifically compare their results to the AACSB results from Maier and Gambill (1996). Another problem with this comparison is that Kung et al. (2006) list *offered* courses while Maier and Gambill (1996) list *required* courses.

In order to address the issues created by the Kung et al. (2006) methodology, the data from this study was also mapped to the categories from the IS 2002 model curriculum. The results, by accrediting body, are shown in Table 3. The results in Table 3 indicate that the IS 2002 model curriculum is not being adopted universally. In fact, the courses in the curriculum appear to fall into one of three adoption categories: courses that have been widely adopted (required by at least 70% of IS programs); generally adopted (required by roughly half of IS programs); and infrequently adopted (required by less than 30% of IS programs). Courses from the IS 2002 model which have been widely adopted include: Programming (IS 2002.5), Telecommuni-cations (IS 2002.6), Systems Analysis & Design (IS 2002.7), and Database (IS 2002.8). Generally adopted courses include Introduction to IS (IS 2002.1 and 2002.3) and an IS Capstone Course (IS 2002.9 and 2002.10). Courses which have been infrequently adopted include: E-Commerce (IS 2002.2) and Operating Systems (IS2002.4). From these results it can be inferred that the IS programs are largely picking and choosing from the model curriculum with few attempting to implement the model in its entirety.

Comparing IS programs at AACSB and ACBSP schools as it relates to IS 2002 adoption, there appears to be little difference with regard to the widely adopted courses. There is, however, a double digit difference between programs at AACSB and ACBSP schools with regard to courses from the generally adopted and infrequently adopted categories. Based on this sample's data, programs at ACBSP schools are more likely to require courses such as Introduction to IS (IS 2002.1 and 2002.3), E-Commerce (IS 2002.2), Operating Systems (IS2002.4), and IS Capstone Course (IS 2002.9 and 2002.10).

5. CONCLUSION

Given the technological advances of the last decade it is hardly surprising that IS programs have had to deal with a significant amount of change. While courses in database and systems analysis have remained important parts of most IS programs, courses in COBOL and computer concepts have become less so. The decline in these courses has made way for new requirements in general programming and networking/data communications.

While IS programs across the country struggle to stay relevant, their efforts have produced a mixed bag. Even attempts by IS organizations to provide guidance through the use of model curricula have not had the desired result. IS programs are using a "pick and choose" mentality toward these model curricula by adopting some courses (e.g. Programming, Telecommunications, Systems Analysis &

Course category	Corresponding IS 2002 course	All schools	AACSB schools (n=50)	ACBSP schools (n=50)
Introduction to IS[1]	IS 2002.1 and IS 2002.3	43.0%	32.0%	54.0%
E-commerce[2]	IS 2002.2	29.0%	24.0%	34.0%
Operating Systems[3]	IS 2002.4	25.0%	16.0%	34.0%
Programming[4]	IS 2002.5	78.0%	76.0%	80.0%
Telecommunications[5]	IS 2002.6	70.0%	74.0%	66.0%
Systems Analysis and [6]	IS 2002.7	81.0%	84.0%	78.0%
Database	IS 2002.8	87.0%	88.0%	86.0%
IS Capstone Course[7]	IS 2002.9 and IS 2002.10	49.0%	40.0%	58.0%

[1]Introduction to IS (2002.1 and 2002.3) = *Computer Concepts* and *Application Software*
[2]E-Commerce (2002.2) = *Web Development* and *e-commerce* courses.
[3]Operating Systems (2002.4) = *Operating Systems*, *Architecture*, *Hardware/Hardware Installation,* and *UNIX* courses.
[4]Programming Languages = *Assembly Language, BASIC, C, C#, C++, COBOL, COBOL II, Java, Java II, Object Oriented Programming I, Object Oriented Programming II, Programming/Program Design/ Development I & II, RPG, Survey of Programming Languages, UNIX, VB, VB II*
[5] Telecommunications = *Networks/ Data Communications*
[6] Systems Analysis and Design= *Systems Analysis and Design I*
[7] IS Capstone Course (IS 2002.9 and IS 2002.10) = *Capstone/ Senior Project, Project Management, Software Engineering, Senior Seminar, Systems Analysis & Design II,* and *Management of Technology/ Case Study* courses.

Table 3. Percentage of schools requiring courses from the IS 2002 categories as defined by Kung et al. (2006)

Design, and Database), while largely ignoring others (e.g. Introduction to IS, IS Capstone Course, E-Commerce, and Operating Systems). There are even significant differences in the level of model adoption based on accrediting body, with programs at ACBSP schools more likely to require courses from the IS 2002 model.

Many of the results reported in this paper raise questions which need to be addressed by future research. For instance, why are IS programs not adopting IS 2002 in a more comprehensive manner? What explains the difference between the adoption levels for programs at AACSB and ACBSP schools? Has computer concepts really gone away, or has it simply become a requirement of the business core?

An additional area of future research would be to include input from industry. Specifically, what material do practitioners want IS students to know? What content is no longer relevant? In what areas do we need to expand coverage? Basically, how cutting edge should IS programs be?

It must also be stated that the paper was limited by its choice of sample frame. While the authors believe strongly that drawing the data from programs at AASCB and ACBSP schools creates a representative sample, there are those who might argue that IS programs specifically accredited by ABET should have been included. Given the limited number of IS programs specifically accredited by ABET, this did not seem feasible. However, as the number of ABET accredited IS grows in the future this might lead to an area for future research.

It is hoped that the results presented herein can be used to provide guidance to support IS programs involved in a curriculum update. By identifying courses which are most frequently required and where the model curricula are being ignored, IS programs will be better able to address their own shortcomings and increase their ability to draw new students.

6. REFERENCES

Atkinson, R.D., and McKay, A.S. "Digital Prosperity: Understanding the Economic Benefits of the Information Technology Revolution," A research report of The Information Technology & Innovation Foundation, Washington D.C., 2007.

Ehie, I., "Developing a Management Information Systems (MIS) Curriculum: Perspectives from MIS Practitioners," Journal of Education for Business, January/February 2002, pp. 151-158.

Gambill, S. and Maier, J., "CIS/MIS Curriculums in AACSB and Non-AACSB Accredited Colleges of Business," Journal of Information Systems Education, Vol. 9(4), Fall/Winter 1998, pp. 59-63.

Gorgone, J., Davis, G., Valacich, J., Topi, H., Feinstein, D. and Longenecker, Jr., H., "IS 2002 Model Curriculum and Guidelines for Undergraduate Degree Programs in Information Systems," Association for Computing Machinery, Association for Information Systems, and Association of Information Technology Professionals. Retrieved November 5, 2008 from http://www.acm.org/education/is2002.pdf

Kung, M., Yang, S. and Yi, Z., "The Changing Information Systems (IS) Curriculum: A Survey of the Undergraduate Programs in the United States," Journal of Education for Business, Vol. 81(6), Jul/Aug 2006, pp. 291-300.

Lee, K.S. "IT Compensation on the Rise in '05," Computerworld, January 18, 2005. Retrieved October 15, 2008 from http://www.computerworld.com/careertopics/story/01,10801,98957,00.html.

McGann, S., Frost, R., Matta, V., and Huang, W., "Meeting the Challenges of IS Curriculum and Modernization: A Guide to Overhaul, Integration, and Continuous Improvement," Journal of Information Systems Education, Vol. 18(1), Spring 2007, pp. 49-62.

National Association of College and Employers (NACE), September 12, 2008. Retrieved October, 15, 2008 from http://www.naceweb.org/press/display.asp?year=prid=288

U.S. Bureau of Labor Statistics. Employment Projections. Retrieved October 15, 2008 from http://data.bls.gov/cgi-bin/print.pl/emptab21/htm.

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APPENDIX A - Complete List of Required Courses

AACSB	
% of Schools	Course
88%	Database
84%	Systems Analysis & Design I
74%	Networks / Data Communication
32%	Programming/Design/Development I
28%	Information Management / MIS
28%	Systems Analysis & Design II
26%	Computer Concepts
24%	Capstone / Senior Project
22%	Object Oriented Programming I
16%	Project Management
14%	Web Development
14%	VB
10%	Operating Systems
10%	Application Software
10%	COBOL
10%	Java
10%	e-Commerce
8%	Object Oriented Programming II
8%	Internship
8%	Programming/Design/Development II
6%	Security
6%	C++
6%	Architecture
6%	Software Engineering
6%	DSS/BI
6%	Web Development II
4%	Data Structures
4%	VB II
4%	IS in Emerging Environments
4%	C#
4%	Enterprise Software ERP
4%	Career planning
2%	Legal/Ethics
2%	Special Topics in MIS
2%	Networks / Data Communication II
2%	Accounting Information Systems
2%	Java II

ACBSP	
% of Schools	Course
86%	Database
78%	Systems Analysis & Design I
66%	Networks / Data Communication
46%	Programming/Design/Development I
40%	Computer Concepts
40%	Capstone / Senior Project
32%	Operating Systems
30%	Web Development
28%	Information Management / MIS
24%	VB
20%	Project Management
20%	Programming/Design/Development II
18%	Application Software
18%	Legal/Ethics
16%	Special Topics in MIS
16%	Networks / Data Communication II
14%	COBOL
12%	Object Oriented Programming I
12%	Data Structures
10%	Security
10%	Application Software II
10%	Java
10%	e-Commerce
10%	Systems Analysis & Design II
10%	DSS
8%	C++
8%	Architecture
6%	ERP
6%	Accounting Information Systems
6%	Software Engineering
6%	Database II
6%	C
6%	Hardware/Hardware Installation
6%	Java II
4%	Object Oriented Programming II
4%	Spreadsheets
4%	EDP Auditing

AACSB	
% of Schools	Course
2%	Software Installation/Develop/Testing
2%	File Structure/File Processing
2%	Digital Computing/Logic
2%	Systems Implementation I
2%	Systems Implementation II
2%	Senior Seminar
2%	UNIX
2%	Software Engineering II
2%	Computer Human Interaction
2%	Business Management
2%	Supply Chain Mgt
2%	VBIII
2%	RPG
2%	Management Science

ACBSP	
% of Schools	Course
4%	Software Installation/Develop/Testing
4%	File Structure/File Processing
4%	Digital Computing/Logic
2%	Computer/ Systems Organization
2%	Internship
2%	Assembly Language
2%	Survey of Programming Languages
2%	Management of Tech /Case Study
2%	Tech Transfer to Commercialization
2%	Computer Models
2%	Computers in Education
2%	COBOL II
2%	Digital Electronics
2%	Multi-Tiered Systems
2%	VB II
2%	Marketing
2%	Local Area Networks
2%	BASIC
2%	End User System Support

APPENDIX B - IS 2002 Model Curriculum

Course	Title	Description
IS 2002.1	Fundamentals of Information Systems	This course provides an introduction to systems and development concepts, information technology, and application software.
IS 2002.2	Electronic Business Strategy, Architecture, and Design	This course examines the linkage of organizational strategy and electronic methods of delivering products, services, and exchanges in inter-organizational, national, and global environments.
IS 2002.3	Information Systems Theory and Practice	This course provides an understanding of organizational systems, planning, and decision process, and how information is used for decision support in organizations.
IS 2002.4	Information Technology Hardware and Software	This course provides the hardware/software technology background to enable systems development personnel to understand tradeoffs in computer architecture for effective use in a business environment.
IS 2002.5	Programming, Data, File and Object Structures	This course provides an exposure to algorithm development, programming, computer concepts, and the design and application of data and file structures.
IS 2002.6	Networks and Telecommunications	This course provides an in-depth knowledge of data communications and networking requirements including networking and telecommunications technologies, hardware, and software.
IS 2002.7	Analysis and Logical Design	This course examines the systems development and modification process.
IS 2002.8	Physical Design and Implementation with DBMS	This course covers information systems design and implementation within a database management systems environment.
IS 2002.9	Physical Design and Implementation in Emerging Environments	This course covers physical design and implementation of information systems applications in emerging distributed computing environments.
IS 2002.10	Project Management and Practice	This course covers the factors necessary for successful management of information systems development or enhancement projects.

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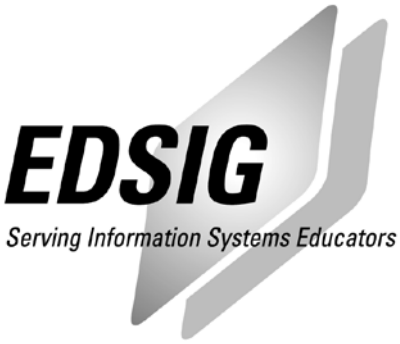

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